W6IFE San Bernadino Microwave Society NewsLetter

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The 6 February 1997 meeting will have Dave, K6OW (WA6OWD) talk about circulators. SBMS meets at the American Legion Hall 1024 Main Street Corona CA at 1930 hours local time.

January newsletter- if you received a bunch of paper shreds rather than the 10 pages of newsletter, please let Bill, WA6QYR know and a replacement can be arranged. It seems that some where in the US Postal system there was a hungry Christmas machine that chewed up a bunch of mail, and some members received a baggy with remains and regrets.

SBMS-American Legion representative needed. Come April SBMS will have only one member with key to open meeting place. We need another one or two veterans to hold keys to the meeting room door. Please contact Frank, WB6CWN if you can help us out.

Last meeting- Frank, WB6CWN presented an excellent talk on maps. Please read the enclosed pages for some good places to get info on how to find contest hill tops, location finding, bearing calculating, etc. Thanks Frank. Welcome to visitors Skip Freely, K6HMS of Newport Beach; Fred Karasek, KF6HQC of Alta Loma; and Martin Crundall, AC6RM of Rialto. Welcome to new members David Reid, W6KL of Burbank; and Ed Murray, N6KKH of Alta Loma;. Rialto. Welcome to member Paul Leib KH6HME from Pahoa, Hawaii on his annual visit to the mainland. Paul holds one end of the DX tropo records from 2 mtrs to 5.6 GHz. 24 people present.

San Bernardino Microwave Society annual dinner will be held at Rilos restaurant 510 E Foothill Blvd. in Pomona, CA thanks to John WA6BFH. Dinner is planned to begin at 19:30 hours on 8 February. Dinner selection includes seafood, chicken, steaks, and pasta ranging from $13.00 to about $20.00. A full bar and wine list are available. There will be a social time before dinner. Dress is casual to nice. The easiest way to get to the restaurant is to take the 10 freeway to Towne Ave and go north. When you reach Foothill about 2 miles above the 10 freeway, turn left (west). The restaurant is on the left (south) side of Foothill, just a couple of blocks west of Towne Ave. The restaurant phone number is 909-621-4954. The Tech Bench Elmers Amateur Radio Society will

be joining us for dinner. RSVP via techbench@geocities.com or wireless@cyberg8t.com or John, WA6BFH 909-361-0681.

January ARRL VHF Contest - Snow came to the majority of mountains in the Southern California area just prior to the contest thus killing the planned microwave outings to the high points.

Scheduling

8 Feb. Annual Dinner - Rilos in Pomona- 19:30 eat- John WA6BFH chairman.

6 Mar. Dick, K6HIJ "Tubes to Semiconductors in Microwave"

19 Apr. 24 Ghz noon time SBMS event

15 Mar. "Straight Key" Home-to-Home QSO Microwave event & SSB / FM too.

10 May 1296 & 2304 Mhz ARRL Spring Sprints

14-16 Jun. ARRL June VHF QSO Party 28-29 Jun. ARRL Field Day 2-3 Aug. ARRL

UHF contest 16-17 Aug.

ARRL 10 GHz & up contest 1st half 12-14 Sept. 1997

ARRL SW Div. Convention in Riverside, CA.13-15 Sept.

ARRL Sept. VHF QSO Party 20-21 Sept. ARRL 10 Ghz & Up contest 2nd half

Wants and Gots for Sale Wanted HP8660B/C with option 100 signal generator main frame Frank WB6CWN 818-362-5432 Wanted HP5255 or 5256 counter plug-in, 10 Ghz xtal mount Gene WA6YOJ 909-737-7615 or eugenecran@juno.com.

Activity report from January SBMS meeting Gordon WB6YLI is refurbishing his 10 Ghz rig Al K6LJM is working on test equipment Gary W6KVC is working on some gunnplexers Dick K6HIJ is redesigning a pole mounted dish Derek KN6TD is working on some 10 Ghz Transverters and a reflection 10 Ghz amplifier. Dave WB6OVZ has a new 18 inch dish. Dick, WB6DNX is working on some new 2 Ghz equipment. He indicates some 8 ft dishes available in future. John WA6BFH has been doing some 1.2 Ghz work. Bill WA6QYR has been sorting the N6IZW donations and had some to pass out at meeting. Phil W6HCC has been doing some computer DSP work for future contact improvements. Chuck WA6EXV has been refurbishing his 10 ft dish mount, recovering some surface mount parts for SBMS from the N6IZW equipment, checking the N6IZW 14 Ghz amps to see if they will work at 24 Ghz. Frank, WB6CWN has been working on his broken TWT. Dave, K6OW is working on a 5 Ghz rig he hopes to have out for contest. Dave WA6CGR is looking to have more documents and material available on the SBMS web site

List of SBMS Tubes donated by Kerry N6IZW (San Diego Microwave Group)2C39 - 3 ea., 4CX150G, 6DQ5 - 7 ea., 6DQ6 - 6 ea., VT212 - 2 ea., 958a, 1247 - 4 ea., 4042, 4043, 5642 - 5 ea., 5675 - 17 ea., 5767 - 3 ea., 5836, 5889, 6080wc - 5 ea., 6146 - 3 ea., 6360 - 14 ea., 6929, 7644 - 2 ea., 7699, 8422, 9001, 9002, 9003, 9005 - 5 ea., 9006 - 3 ea.; nuvistors- 6CW4 - 12 ea., 7586 - 10 ea., 7895 - 3 ea., 8056 - 4 ea., 8393 - 9 ea. Contact Bill WA6QYR for what you need. 247 Rebel Road Ridgecrest, CA 93555 619-375-8566 bburns@ridgecrest.ca.us or WA6QYR@WA6YBN#SOCA.CA.US

Other News --This weekend I finished installing my 10 Ghz rooftop transverter for working through the Miguel repeater. It consists of a weatherized box with transverter and 2' dish mounted on a steel pipe frame straddling the gable of the garage. I am not quite line-of-site to the repeater but am able to put a signal through the repeater similar in level to the beacon and have copied both Palos Verdes & Fraizer beacons. This unit will be powered up continuously & contains its own ovenized 10 MHz reference. I will be monitoring 10368.140 (about 100 KHz

above the Miguel beacon) on NBFM when in the shack. We use this as a calling frequency/mode locally to reduce anxious to try working additional stations when ever the opportunity arises. You can reach me at my home phone of 619-462-2220. That now makes five of the San Diego Microwave group who are equipped to work the repeater from home. The list now is: Ed, W6OYJ; Pete, W6DXJ; Jerry, WA6VLF; Chuck, WB6IGP; Kerry, N6IZW. I'd like to pursue the possibility of putting up another 10 GHz repeater up North linked to the Miguel site if there's interest & a site available. I will be willing to supply components or build/install the repeater. - 73 Kerry N6IZW -

January 1997 San Diego Microwave Report--Kerry, N6IZW reported that he had sent three Qualcomm 14 Ghz hardware sets to Brian Yee in N. California where 24 Ghz test capability is available. Kerry had done a partial 24 Ghz mod to one of the units and Brian & the N. Calif. group are to attempt to improve on this and see if a good conversion to 24 Ghz can be worked out, eventually returning one modified unit to Kerry. Kerry said that numerous (tens) of Qualcomm hdwe sets had been ordered by amateurs in both Australia and Denmark. He has also been attempting to find a way to retune the newer version of the 14 Ghz power amplifier to 10 GHz, which means applying his earlier stripline techniques on a microscopic scale to the internal stripline circuits of the hybrid device mounted on a ceramic substrate. (i.e. retuning the INSIDE of the very small device!). Ed, W6OYJ was active from his home QTH in the January VHF sweepstakes and worked Kerry N6IZW, Pete W6DXJ, and Chuck WB6IGP on 10 GHz SSB by bouncing off various local peaks. The Miguel active on-frequency repeater was turned off during these contacts. Ed has obtained a second 24 Ghz Gunn source (100 mw?) and is putting together a second WBFM station for that band. 73s from W6OYJ

ARRL PACIFIC DIVISION UPDATE FEBRUARY, 1997 by Brad Wyatt, K6WR, Director, Pacific Division, ARRL Pacific Division Home Page -- http://www.pdarrl.org/ Effectively of RF Exposure Regs Delayed 'til Jan. 1, 1998:- The FCC, on Dec. 23, 1996, amended its rules (FCC Report & Order 96-236) to extend the transition period for Radio Amateurs to Jan. 1, 1998, to determine compliance with the new requirements for exposure to radio frequency (RF) fields produced by FCC-regulated transmitters. As an aid to aid amateurs in complying with the new regulations, the FCC plans to release a document, OET Document Number 65, that will contain technical guidance for all amateurs. see the ARRL WWW site at http://www.arrl. org/ news/rfsafety/ for current information. 2m/70 cm Band Threats:- The Geneva preparation meetings and the latest round of IWG2A meetings ended Jan. 7, 1997. The issue has not been dealt with as definitively as would have been expected at this relatively late date in the WRC-97 preparatory process. The Federal Emergency Management Agency (FEMA) has issued a statement supporting the hams' continued use of these bands. However, another challenger has appeared - NASA/JPL and other space agencies are looking at the 70 cm. band for a satellite-carried synthetic aperture radar system (see page 72 of January QST). The Little LEO folks have a satellite to be launched to collect data for a study of frequency sharing possibilities below 1 GHz. They were able to obtain permission to submit data later in 1997 potentially bypassing the preparatory meetings. ARRL and IARU are following this plan closely. It appears that the draft paper for the U. S. delegation position has been tabled for now, but will come up again at the Jan. 21 meeting. There seems to be substantial disagreement within IWG2A over its contents. However, it now seems possible that the U. S. delegation position for WRC-97 may NOT include support for Little LEO access to these bands, but the threat could come from somewhere else. For more information, see the K1ZZ editorial on p. 9, Feb. QST. 2300-2310 MHz Band Threat -Public Law 104-208 made 2305-2310 MHz of the Amateur Band spectrum available for auction to finance current 1997 Federal spending. To save what we can, ARRL has filed comments to keep our secondary status at 2305-2310 MHz and to be elevated to primary from 2300-2305 Mhz in Docket 96-228. We also filed a separate petition asking for the same allocations. There seems to be a real chance that this just might work. Dec. QST, p. 15, and Jan. QST, p. 71 detail the first part of this story; Jan. QST, p. 16; Feb. QST, p. 16 tell the second. 5800 MHz Band Threat -- New Sharing Services in 100 MHz of Band --The FCC, in a Report and Order on Jan. 9, 1997, created a new type of unlicensed device called a U-NII device (Unlicensed NII). They also determined spectrum for this device as follows: 5.15-5.35 GHz: 200 MHz, outside Amateur Bands. 5.725-5.825 GHz: 100 MHz - 50 MHz less than proposed in the NPRM. Apparently this spectrum will be lower than the 5830-5850 MHz downlink band for Phase 3D. The power levels are reported to be: 5.15-5.25 GHz - 200 mw EIRP, 5.25-5.35 GHz - 1 W EIRP, 5.725-5.825 GHz - 4 W EIRP. There appears to be no restriction on whether the devices are Spread Spectrum or non Spread Spectrum devices. The 4 W EIRP figure is the same as that allowed Part 15.247 (SS) devices. This means that where the Amateur Radio allocation is now, we are going to have a mix of SS and non-SS devices at

the same power levels. This does not appear to be good for Part 15.247 devices or hams. Amateurs are to be "protected" from interference. The "protection" from interference apparently is based on the fact that amateur priority is higher than these unallocated unlicensed devices. It also appears that there is specific reference to not protecting these devices from amateur radio. This additional sharing service comes as a result of NPRM ET Docket 96-102, based on the petitions from Apple Computer and WINForum, to grant access to the Amateur Radio Spectrum from 5725-5875 MHz band for the NII/SUPERNET proposal for free spectrum for very high data rate LANs and other activities for schools, libraries, hospitals. ARRL and many other Comments opposed this NPRM. The FCC Gettysburg is in the process of installing a new toll free service to the public to field any calls dealing with any telecommunications topic. The number is 1-888-CALLFCC. While not fully operational, this number can now be reached by anyone in the Pacific Division. The goal is that this number will be the first contact by outside persons to the FCC. I have tried it several times over the last couple of months and find the staffers pleasant, but basically not knowledgeable about Amateur Radio. You might try it to see what you think. I would be interested in your comments.

73's Bill

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